

---

## Abstract

---

A honeycomb structure with a plurality of flexible material strips which are arranged next to one another and are connected to one another is presented, in which the material strips have according to the present invention a corrugated shape with U-shaped cross section of essentially straight, vertical partial areas (3) and curved, horizontal partial areas (2), wherein the material strips are connected to one another at contact points (4) of the straight, vertical partial areas.

In addition, a device for manufacturing a honeycomb according to the present invention is disclosed, which has welding sections (6), by which the flexible material strips (9) are guided, where the said material strips are welded to one another by means of a comb-like finger system (10) by the finger system or the welding sections being laterally displaced by two sections and by a pressing operation taking place between the finger and the welding section, which presses two material strips onto a heated welding wire (7), which leads to the thermal connection of the material strips.

Figure 1

Figure 1 through Figure 8

Figure 1

KEY:

Produktionsrichtung - Direction of production